Witold Brostow

List of Publications by Year
in descending order

145 papers	3,187 citations	159585 30 h-index	189892 50 g-index
146 all docs	146 docs citations	146 times ranked	2986 citing authors

#	Article	IF	Citations
1	Polymeric Coatings for Skutterudite-Based Thermoelectric Materials. Lubricants, 2022, 10, 72.	2.9	0
2	Scratch behavior of reinforced HDPE through molecular dynamics simulations. MRS Communications, 2021, 11, 628-634.	1.8	0
3	Preventing thermal degradation of PVC insulation by mixtures of crossâ€linking agents and antioxidants. Journal of Applied Polymer Science, 2020, 137, 48816.	2.6	5
4	3D-printed and injection molded polymer matrix composites with 2D layered materials. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 042201.	2.1	11
5	Sawdust based composites. Polymers for Advanced Technologies, 2020, 31, 2504-2511.	3.2	7
6	Effects of UV Stabilizers on Polypropylene Outdoors. Materials, 2020, 13, 1626.	2.9	15
7	Nano-Al (OH)3 and Mg (OH)2 as flame retardants for polypropylene used on wires and cables. Emergent Materials, 2019, 2, 23-34.	5.7	15
8	Mechanical finishing and ion beams application to cold working tool steels: consequences for scratch resistance. MRS Communications, 2018, 8, 178-182.	1.8	2
9	Composites containing bamboo with different binders. Pure and Applied Chemistry, 2018, 90, 1001-1009.	1.9	5
10	Modified xonotliteâ€“type calcium silicate hydrate slabs for fire doors. Journal of Fire Sciences, 2018, 36, 83-96.	2.0	7
11	Tensile properties and wear resistance of epoxy nanocomposites reinforced with cellulose nanofibers. Polymer Bulletin, 2018, 75, 2039-2051.	3.3	22
12	Synthesis and ionic conductivity of siloxane based polymer electrolytes with pendant propyl acetoacetate groups. Pure and Applied Chemistry, 2018, 90, 989-999.	1.9	4
13	Antibiocorrosive epoxy-based coatings with low friction and high scratch resistance. Wear, 2018, 394-395, 228-235.	3.1	15
14	Effects of polymeric coatings on the service life of bismuth telluride-based thermoelectric materials. Sustainable Energy and Fuels, 2017, 1, 1376-1380.	4.9	10
15	Sliding wear behavior of polymers studied with mesoscopic molecular dynamics. Journal of Materials Science, 2017, 52, 1203-1213.	3.7	6
16	Improvement of Scratch and Wear Resistance of Polymers by Fillers Including Nanofillers. Nanomaterials, 2017, 7, 66.	4.1	41
17	Arsenic Antibacterial Polymer Composites Based on Poly(Vinyl Chloride). Macromolecular Symposia, 2016, 365, 258-262.	0.7	4
18	Modification of Poly(Vinyl Chloride) + Epoxy Systems for Improved Thermal and Aging Stability. Macromolecular Symposia, 2016, 365, 239-245.	0.7	5

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19	Synthesis of silver nanoparticles using aqueous extracts of Heterotheca inuloides as reducing agent and natural fibers as templates: Agave lechuguilla and silk. Materials Science and Engineering C, 2016, 69, 429-436.	7.3	40
20	Effects of ball burnishing on surface properties of low density polyethylene. Tribology International, 2016, 93, 36-42.	5.9	33
21	Rheological Characterization of Liquid Polymers Containing Ceramic Nanopowders for Use in Thermoelectric Devices. Journal of Nanoscience and Nanotechnology, 2015, 15, 6604-6608.	0.9	5
22	Waste Materials from Tetra Pak Packages as Reinforcement of Polymer Concrete. International Journal of Polymer Science, 2015, 2015, 1-8.	2.7	4
23	Tribological and Mechanical Properties of Poly[(R)-3-hydroxybutyric acid] Grafted with Vinyl Compounds: Insight into Possible Application. International Journal of Polymer Analysis and Characterization, 2015, 20, 469-479.	1.9	5
24	Brittleness and toughness of polymers and other materials. Materials Letters, 2015, 159, 478-480.	2.6	100
25	Tribology of composites produced with recycled GFRP waste. Journal of Composite Materials, 2015, 49, 2849-2858.	2.4	7
26	Zeta Potentialâ€“Viscosity Relationship in Kaolinite Slurry in the Presence of Dispersants. Arabian Journal for Science and Engineering, 2014, 39, 5451-5457.	1.1	17
27	Molecular dynamics computer simulation of scratch resistance testing of polymers: visualization. Polymer Bulletin, 2013, 70, 1457-1464.	3.3	7
28	Bond strength of polymer lightweight aggregate concrete. Polymer Composites, 2013, 34, 2125-2132.	4.6	14
29	Porous polymer oil sorbents based on PET fibers with crosslinked copolymer coatings. RSC Advances, 2013, 3, 25849.	3.6	29
30	X-Ray, Gamma, and Neutron Radiation Tests on Epoxy-Ferrochromium Slag Composites by Experiments and Monte Carlo Simulations. International Journal of Polymer Analysis and Characterization, 2013, 18, 224-231.	1.9	83
31	Porous polyurethane foams based on recycled poly(ethylene terephthalate) for oil sorption. Polymer International, 2013, 62, 116-126.	3.1	55
32	Polymer indentation with mesoscopic molecular dynamics. Journal of Materials Research, 2013, 28, 3043-3052.	2.6	15
33	Porous crosslinked copolymers of octadecyl acrylate with acrylic acid as sorbers for crude petroleum spills. Polymer International, 2013, 62, 1225-1235.	3.1	17
34	Estimation of fracture energy of high-strength steel fibre-reinforced concrete using rule-based Mamdani-type fuzzy inference system. Science and Engineering of Composite Materials, 2012, 19, 373-380.	1.4	8
35	Bismuth telluride-based thermoelectric materials: Coatings as protection against thermal cycling effects. Journal of Materials Research, 2012, 27, 2930-2936.	2.6	42
36	Composites of polyesterâ€‰+â€‰glass fiber residues vs. composites with mineral fillers. Composite Interfaces, 2012, 19, 511-522.	2.3	5

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37	Plasticizer migration from crossâ€linked flexible PVC: Effects on tribology and hardness. Polymer Engineering and Science, 2012, 52, 211-217.	3.1	31
38	Tribological properties of ethyleneâ€“propyleneâ€“diene rubber + polypropylene + thermalâ€shockâ€resistant ceramic composites. Polymer International, 2012, 61, 1362-1370.	3.1	7
39	Poly(butyl terephthalate)/oxytetramethylene + oxidized carbon nanotubes hybrids: Mechanical and tribological behavior. Journal of Materials Research, 2012, 27, 1815-1823.	2.6	18
40	Thermal, hydrolytic, anticorrosive, and tribological properties of alkydâ€silicone hyperbranched resins with high solid content. Journal of Applied Polymer Science, 2012, 124, 3591-3599.	2.6	17
41	Thermal and mechanical properties of EPDM/PPÂ+Âthermal shock-resistant ceramic composites. Journal of Materials Science, 2011, 46, 2445-2455.	3.7	31
42	Strong thermoplastic elastomers created using nickel nanopowder. Polymer Bulletin, 2011, 67, 1671-1696.	3.3	9
43	The concept of materials brittleness and its applications. Polymer Bulletin, 2011, 67, 1697-1707.	3.3	64
44	Encapsulation of hydrophobic drugs in a copolymer: Glass transition behavior and miscibility evaluation. Polymer Engineering and Science, 2011, 51, 1456-1465.	3.1	10
45	Workability and Mechanical Performance of Steel Fiber-Reinforced Self-Compacting Concrete with Fly Ash. Composite Interfaces, 2011, 18, 169-184.	2.3	158
46	Optimization of Tribological and Mechanical Properties of Nanocomposites of Polyurethane/Poly(vinyl acetate)/CaCO₃. Journal of Nanoscience and Nanotechnology, 2011, 11, 3922-3928.	0.9	23
47	Effect of marble particle size and gamma irradiation on mechanical properties of polymer concrete. E-Polymers, 2010, 10, .	3.0	10
48	Surface and electrical properties of high density polyethylene + carbon black composites near the percolation threshold. E-Polymers, 2010, 10, .	3.0	3
49	Post-irradiation effects on Nylon-fibers reinforced concretes. E-Polymers, 2010, 10, .	3.0	4
50	Brittleness of materials: implications for composites and a relation to impact strength. Journal of Materials Science, 2010, 45, 242-250.	3.7	115
51	Thermomechanical processing environment and morphology development of a thermotropic polymer liquid crystal. Journal of Applied Polymer Science, 2010, 115, 2991-3004.	2.6	3
52	Tribological properties of LDPE + Boehmite composites. Polymer Composites, 2010, 31, 417-425.	4.6	10
53	Effect of different types of peroxides on properties of vulcanized EPDM + PP blends. Polymer Composites, 2010, 31, 1678-1691.	4.6	49
54	Rheology of low-density polyethylene + Boehmite composites. Polymer Composites, 2010, 31, 1909-1913.	4.6	17

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55	Characterization of orientation in polyethylene by scratch testing. E-Polymers, 2010, 10, .	3.0	1
56	Swelling and network parameters of crosslinked porous octadecyl acrylate copolymers as oil spill sorbers. E-Polymers, 2009, 9, .	3.0	4
57	Reliability and prediction of long-term performance of polymer-based materials. Pure and Applied Chemistry, 2009, 81, 417-432.	1.9	26
58	Tensile properties of LDPE + Boehmite composites. Polymer Composites, 2009, 30, 760-767.	4.6	9
59	Gammaâ€irradiation effects on polypropyleneâ€based composites with and without an internal lubricant. Polymer Engineering and Science, 2009, 49, 1035-1041.	3.1	6
60	Effect of the type of carbon nanotubes on tribological properties of polyamide 6. Polymer Engineering and Science, 2009, 49, 896-902.	3.1	52
61	Glass transition temperatures in binary polymer blends. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 80-95.	2.1	105
62	Preparation and Characterization of Poly(Lactic Acid)â€gâ€Maleic Anhydrideâ€‰+â€‰Starch Blends. Macromolecular Symposia, 2009, 277, 69-80.	0.7	104
63	Accuracy in locating glass transitions: aging and gamma sterilization of vulcanized thermoplastic elastomers. E-Polymers, 2009, 9, .	3.0	3
64	Polymer concretes improved by fiber reinforcement and gamma irradiation. E-Polymers, 2009, 9, .	3.0	7
65	Tribological Properties of Epoxy+Silica Hybrid Materials. Journal of Nanoscience and Nanotechnology, 2009, 9, 1916-1922.	0.9	18
66	Effects of Î³ radiation on fiberâ€reinforced polymer concrete. Polymer Composites, 2008, 29, 1244-1251.	4.6	19
67	Tribological properties of blends of melamineâ€formaldehyde resin with low density polyethylene. Polymer Engineering and Science, 2008, 48, 292-296.	3.1	14
68	Predicting wear from mechanical properties of thermoplastic polymers. Polymer Engineering and Science, 2008, 48, 1982-1985.	3.1	39
69	Settling rates for flocculation of iron and manganese oreâ€containing suspensions by cationic glycogen. Polymer Engineering and Science, 2008, 48, 1892-1896.	3.1	14
70	Characterization of grooves in scratch resistance testing. Polymer Engineering and Science, 2008, 48, 2060-2065.	3.1	17
71	Effects of surface plasma treatment on tribology of thermoplastic polymers. Polymer Engineering and Science, 2008, 48, 1971-1976.	3.1	59
72	Microhybrids of metal powder incorporated in polymeric matrices: Friction, mechanical behavior, and microstructure. Polymer Engineering and Science, 2008, 48, 1977-1981.	3.1	21

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73	Synthesis and Characterization of Poly(methyl acrylate) + SiO2 Hybrids. E-Polymers, 2008, 8, .	3.0	5
74	Polypropylene + Polystyrene Blends with a Compatibilizer. Part I. Morphology and Thermophysical Properties. E-Polymers, 2008, 8, .	3.0	4
75	Polypropylene + Polystyrene Blends with a Compatibilizer. Part 2. Tribological and Mechanical Properties. E-Polymers, 2008, 8, .	3.0	5
76	Long-term irradiation effects on gamma-irradiated Nylon 6,12 fibers. Journal of Materials Research, 2008, 23, 1276-1281.	2.6	7
77	Porous hydroxyapatite-based obturation materials for dentistry. Journal of Materials Research, 2008, 23, 1587-1596.	2.6	20
78	Grooves in scratch testing. Journal of Materials Research, 2007, 22, 2483-2487.	2.6	33
79	Synthesis and Characterization of Porous Crosslinked Copolymers for Oil Spill Sorption. E-Polymers, 2007, 7, .	3.0	4
80	Concrete + polyester + CaCO3: Mechanics and morphology after gamma irradiation. E-Polymers, 2007, 7, .	3.0	3
81	Poly(methyl acrylate) plus Mesoporous Silica Nanohybrids: Mechanical and Thermophysical Properties. E-Polymers, 2007, 7, .	3.0	14
82	Lowering mechanical degradation of drag reducers in turbulent flow. Journal of Materials Research, 2007, 22, 56-60.	2.6	38
83	Formation of polymethylsiloxanes with alkyl side groups. Journal of Applied Polymer Science, 2007, 104, 1176-1183.	2.6	20
84	Polymer tribology in safety medical devices: Retractable syringes. Advances in Polymer Technology, 2007, 26, 56-64.	1.7	17
85	Nanoindentation creep and glass transition temperatures in polymers. Polymer International, 2007, 56, 773-778.	3.1	42
86	Sliding wear, viscoelasticity, and brittleness of polymers. Journal of Materials Research, 2006, 21, 2422-2428.	2.6	261
87	Thermophysical Properties and Molecular Relaxations in Cured Epoxy Resinâ€‰+â€‰PEO Blends: Observations on Factors Controlling Miscibility. Macromolecular Chemistry and Physics, 2006, 207, 879-892.	2.2	20
88	Concrete reinforced with irradiated nylon fibers. Journal of Materials Research, 2006, 21, 484-491.	2.6	43
89	Wear of thermoplastics determined by multiple scratching. E-Polymers, 2005, 5, .	3.0	24
90	Mechanical improvement of concrete by irradiated polypropylene fibers. Polymer Engineering and Science, 2005, 45, 1426-1431.	3.1	43

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91	Scratch velocity and wear resistance. E-Polymers, 2005, 5, .	3.0	7
92	A statistical-mechanical model of polymer liquid crystals subjected to external deformations. Journal of Chemical Physics, 2004, 121, 3272-3281.	3.0	9
93	Friction and Scratch Resistance of Polymer Liquid Crystals: Effects of Magnetic Field Orientation. Journal of Materials Research, 2004, 19, 1038-1042.	2.6	20
94	Tribological Behavior of Polymers Simulated by Molecular Dynamics. Journal of Materials Research, 2004, 19, 851-856.	2.6	38
95	Determination of wear of surfaces by scratch testing. E-Polymers, 2004, 4, .	3.0	7
96	Application of dynamic mechanical analysis techniques to bismuth telluride based thermoelectric materials. E-Polymers, 2004, 4, .	3.0	2
97	Morphology and thermal properties of two polymethacrylates modified by a polymer liquid crystal. Polymer International, 2004, 53, 460-464.	3.1	0
98	Thermoplastic elastomers from rubber and recycled polyethylene: chemical reactions at interphases for property enhancement. Polymer International, 2004, 53, 1693-1703.	3.1	20
99	Structural characterization of ?- and ?-nucleated isotactic polypropylene. Polymer International, 2004, 53, 2086-2091.	3.1	81
100	Cure progress in epoxy systems: dependence on temperature and time. Materials Research Innovations, 2003, 7, 125-132.	2.3	21
101	Synthesis and characterization of petroleum resins with epoxy groups. Materials Research Innovations, 2003, 7, 167-171.	2.3	8
102	Polymer resins with epoxy end groups obtained from hydrocarbon pyrolysis C9 fraction. Materials Research Innovations, 2003, 7, 291-294.	2.3	2
103	Connection of surface tension with multiple tribological properties in epoxy + fluoropolymer systems. Polymer International, 2003, 52, 1498-1505.	3.1	34
104	POLY(ETHYLENE TEREPHTALATE)-CONTAINING POLYMER LIQUID CRYSTALS AND THEIR BLENDS. International Journal of Polymeric Materials and Polymeric Biomaterials, 2003, 52, 999-1034.	3.4	0
105	Nanohybrid scratch resistant coatings for teeth and bone viscoelasticity manifested in tribology. Materials Research Innovations, 2003, 7, 110-114.	2.3	83
106	Generation of polymeric structures on a computer. Materials Research Innovations, 2003, 7, 19-26.	2.3	14
107	POLYCHAR-10 World Forum on Polymer Applications & Theory in 2002. Materials Research Innovations, 2003, 7, 1-3.	2.3	1
108	Oligomeric azodinitrile compounds with epoxy groups on the basis of 4,4â€²-azo-bis-(4-cyanopentanoic) acid. Materials Research Innovations, 2003, 7, 47-50.	2.3	0

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109	Crosslinking agents of unsaturated polymers: evaluation of the agent efficiency. Materials Research Innovations, 2002, 6, 153-159.	2.3	13
110	POLYCHAR-9 Worldwide Forum on Polymer Applications and Theory in 2001. Materials Research Innovations, 2002, 5, 240-242.	2.3	1
111	Synthesis and properties of peroxy derivatives of epoxy resins based on Bisphenol A: Effects of the presence of boron trifluoride ethereate. Materials Research Innovations, 2002, 6, 24-30.	2.3	20
112	Effects of fluoropolymer addition to an epoxy on scratch depth and recovery. Materials Research Innovations, 2002, 6, 7-12.	2.3	78
113	Effects of magnetic fields on flexural properties of a longitudinal polymer liquid crystal. Materials Research Innovations, 2002, 5, 261-267.	2.3	7
114	Mechanical properties of glass fiber composites with an epoxy resin modified by a liquid crystalline epoxy. Polymer Composites, 2002, 23, 564-573.	4.6	9
115	Separation of gelation from vitrification in curing of a fiber-reinforced epoxy composite. Polymer Composites, 2002, 23, 1111-1119.	4.6	47
116	Thermomechanical Characterization of Bismuth Telluride Based Thermoelectric Materials. Materials Research Society Symposia Proceedings, 2001, 691, 1.	0.1	3
117	Graphical modeling and computer animation of tensile deformation in polymer liquid crystals (PLCs). Materials Research Innovations, 2001, 4, 75-81.	2.3	22
118	POLYCHAR-8 worldwide forum on polymer applications and theory in 2000. Materials Research Innovations, 2001, 4, 65-67.	2.3	6
119	Effects of glass fibers and polypropylene/glass fiber hybrid fibers on the kinetics and mechanical properties of epoxy composites. Polymer Composites, 2001, 22, 32-41.	4.6	3
120	Prediction of long-term service performance of polymeric materials from short-term tests: Creep and prediction of the stress shift factor of a longitudinal polymer liquid crystal. Polymer Engineering and Science, 2001, 41, 977-981.	3.1	24
121	Thermal expansivity and thermal conductivity of amorphous thermoplastic polyimide and polymer liquid crystal blends. Polymer Engineering and Science, 2000, 40, 490-498.	3.1	10
122	Time-stress correspondence in viscoelastic materials: an equation for the stress and temperature shift factor. Materials Research Innovations, 2000, 3, 347-351.	2.3	48
123	Mechanisms of Orientation of Polymer Liquid Crystals (PLCs) in External Fields. International Journal of Polymeric Materials and Polymeric Biomaterials, 2000, 45, 169-189.	3.4	2
124	Peroxy derivatives of epoxy resins based on bisphenol A: Effects of quaternary ammonium salts. Materials Research Innovations, 1999, 3, 132-137.	2.3	27
125	Poly(acrylic acid) + zinc diacetate composites: High temperature service and electric conductivity. Materials Research Innovations, 1999, 3, 85-91.	2.3	13
126	International forum on polymers 1999: POLYCHARâ€7. Macromolecular Symposia, 1999, 148, i.	0.7	0

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127	Conformational transformations in chiral polythiophene derivatives aggregated in polymethacrylate matrices: Experiments and molecular dynamics simulations. Macromolecular Symposia, 1999, 148, 31-45.	0.7	4
128	Epoxy networks modified by unsaturated oligoesters and acrylates or methacrylates. Macromolecular Symposia, 1999, 148, 87-102.	0.7	1
129	Cowoven polypropylene/glass composites with polypropylene + polymer liquid crystal interlayers: Dynamic mechanical and thermal analysis. Polymer Composites, 1998, 19, 107-115.	4.6	9
130	Semicrystalline thermoplastic polyimide + polymer liquid crystal blends: Nonisothermal calorimetry and thermogravimetry. Polymer Engineering and Science, 1998, 38, 204-212.	3.1	7
131	Evaluation of Potential Printed Wiring Board Materials: Thermoplastic Polyimide + Polymer Liquid Crystal Blends. Materials Research Society Symposia Proceedings, 1998, 515, 125.	0.1	0
132	Structures of Blends of Poly (p-Phenylene Sulfide) (PPS) with Poly(p-Phenylene Sulfide) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.4	2
133	Synthesis and Thermal Properties of Poly(ethynyldimethylsilane-co-dimethylsiloxanes). International Journal of Polymeric Materials and Polymeric Biomaterials, 1997, 35, 157-171.	3.4	1
134	Preface. International forum on polymers: Status report 1996. Polymer Engineering and Science, 1997, 37, 925-927.	3.1	1
135	Dielectric and Mechanical Relaxation in the Blends of a Polymer Liquid Crystal with Polycarbonate. Macromolecules, 1996, 29, 5017-5025.	4.8	35
136	Statistical thermodynamics of polymer liquid crystals: Competition between energetic and entropic effects. Journal of Chemical Physics, 1996, 105, 4367-4376.	3.0	16
137	Computer simulations of chain conformations in dilute polymer solutions under shear flow. Journal of Chemical Physics, 1996, 105, 7135-7139.	3.0	18
138	Polydisperse polymer liquid crystals near the anisotropicâ€isotropic transition. Macromolecular Theory and Simulations, 1996, 5, 1151-1166.	1.4	5
139	Stress relaxation: Experiment, theory, and computer simulation. Mechanics of Composite Materials, 1996, 31, 432-445.	1.4	7
140	Preface. International forum on polymersâ€”1995: Part II. Polymer Engineering and Science, 1996, 36, 1029-1031.	3.1	3
141	Nonisothermal thermophysical evaluation of a polypropylene + ethylene propylene diene (EPDM) blend. Polymer Engineering and Science, 1996, 36, 1101-1106.	3.1	8
142	Epoxy and glass composites in water studied with2H-NMR. Polymer Engineering and Science, 1996, 36, 1129-1133.	3.1	14
143	Stress Relaxation In Metals And Polymers: Theory, Experiment And Computer Simulations. Materials Research Society Symposia Proceedings, 1993, 321, 99.	0.1	9
144	Computer simulation of stress relaxation. Makromolekulare Chemie Macromolecular Symposia, 1993, 65, 109-121.	0.6	1

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145	Wetting angles of molten polymers on thermoelectric solid metal surfaces. Journal of Adhesion Science and Technology, 0, , 1-9.	2.6	4